

**RESTRICTED**

1.

AIR HISTORICAL BRANCH.

TRANSLATION NO. VII/40.

THE EFFECTS

OF

AIR POWER.

As stated by the German war leaders,  
in extracts from original German  
documents and Allied interrogation  
reports.

**RESTRICTED**

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FOREWORD,

The object of this first collection is to present, in readily accessible and concise form, the views of the German war leaders on the effects of Air Power on the course of the late War. By the use of short extracts from original German documents, and from Allied interrogation reports, an attempt has been made to show the effects of German, and later of Allied air supremacy on the different campaigns of the War as seen through German eyes. A further collection will be issued in due course.

A.H.B.6.  
Air Ministry.  
August, 1947.

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I.

THE EARLY GERMAN VICTORIES

- a) Extract from speech delivered by General PELZ, AOC Fliegerkorps X on 10.10.1944.  
(Doc. No.8A-2295.)

" ..... In 1939, the Army and Air Force began the fight equipped with weapons and personnel superior both quantitatively and qualitatively to those of the enemy ..... Two fundamentally new factors emerged during the course of the campaigns against Poland and France, - the amazing effect of strong tank units and the vital importance of the Air Force ..... It is certain that the significance of air power was not at that time fully understood by the Army ..... I mention this fact particularly, for it is largely as a result of this lack of appreciation that we have been reduced to our present plight ....."

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- b) General LOEHR, (AOC-in-C. Luftflotte 4 during the Crete campaign. writing on air operations during the Battle of Poland. (dated 11.6.1944). (A.H.B.6. Translation No.VII/33.)

" ..... For the first time, the Air Force was to operate as an independent arm, altering conceptions of strategy which had remained unchanged since the earliest days of history. For the first time, the Air Force was to be employed against the enemy not only on the battlefield, - but also far from it, - in such a way that the defeat of the enemy would in great part be due to the Air Force ....."

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## II.

N O R W A Y

Extracts from report by General JODL, dated 12.6.1940.  
dealing with the operations in Norway and Denmark.  
(Doc. No. WC/35).

"The Air Force proved to be the decisive factor in the success of the operation. It bore the main burden of the fight against the enemy fleet, which was numerically far superior to our Navy, and alone made it possible to bring by the 10th of June supplies, reinforcements and relief to the Narvik group which was fighting alone - without any land or sea communications. The Air Force has provided a proof, decisive for the future developments, that no fleet (however strong it may be) can operate in the long run within the close effective range of an enemy Air Force. Thus the German Air Force succeeded in driving away the enemy naval forces which were from time to time in the vicinity of the Norwegian coast after our landing. I inflicted enormous losses on the enemy shipping taking part in the landing near Namsos and Andalsnes and on that engaged in the withdrawal from these places. Its proudest success was the destruction of an English battleship on the 3rd of May in the sea area of Namsos. The rapid occupation of Oslo and Stavanger as early as the 9th April was only made possible by the employment of parachutists and airborne troops. Bombers and dive-bombers shattered the nerves of the crews of the enemy coastal batteries in Oslo Fjord and at Christiansand and hastened their surrender."

"As ever, the Air Force intervened effectively in the ground fighting and, between Oslo and Bergen, and in particular between Oslo and Trondhjem, interrupted rear communications and interfered with the bringing up of reinforcements. Before land communication was effected between Oslo and Trondhjem, the Air Force ferried over many thousand men to Trondhjem as reinforcements. With its fighters and heavy fighters it dominated the skies from the very first day and was never discouraged by difficulties, however great they might be, when setting up new airfields."

"That the heroic resistance of the Narvik group ended in complete victory is, together with great successes in the Western theatre of war, to be ascribed to the operations of the Air Force."

### III. THE INVASION OF BRITAIN.

- a) Extract from operational order signed by Field Marshal KEITEL and General JODL on 12.7.1940., dealing with preparations for the invasion of Britain. (Operation 'Sea-Lion')  
Doc. No. WC/37.)

".... England is in command of the seas. Therefore a landing will only be possible on the Southern Channel coast where we can substitute our lack of sea supremacy by air supremacy ...."

".... the tasks of the Air Force will be to prevent the intervention of the enemy Air Force, and to attack the enemy Naval Forces far away from the crossing points, to overcome coastal defences which can operate against the landing points, to break the resistance of the enemy ground troops, to annihilate advancing reserves, and to destroy the most important lines of transport necessary for the bringing up of reinforcements ...."

- b) Extract from speech made by General JODL at Munich on 7.11.1945.  
(Doc. No. L.172. Office of U.S. Chief of Counsel.)

".... The landing in England, prepared for down to the smallest detail, could not be attempted while the British air arm had not been completely beaten, and this we were not able to do .....  
 No one could take it upon himself to allow the German Air Force to bleed to death in the Battle of Britain in view of the struggle which still lay before us against Soviet Russia ....."

- c) Extract from 8th Abteilung Staff Study, 'The Course of the Air War against England', dated 7.7.1944.  
(A.H.B. 6. Translation No. VII/26.)

".... The participation of the Luftwaffe in the quick successes of the Army in Poland, Norway, and France had been the deciding factor in the battle. The destruction of the enemy Air Forces in the shortest time had created the preliminary conditions for a German victory on all fronts. The significance of the Air Force would be even greater in attacks on England, as only by the use of air power was it possible to attempt to surmount the strategic advantages of England's island position ....."

(This quotation refers to the preparations made for the invasion in 1940.)

## IV.

C R E T E .

Extracts from a Report issued by Luftflotte 4 on 28.11.1941.  
(A.H.B. 6, Translation No. VII/24.)

".... The weakest point in the British defence of Crete was the absence of their Air Force during the decisive days of the action ..... Absolute aerial supremacy is the essential condition for the success of an airborne attack. During the operations on Crete, this was achieved by the complete elimination of the enemy Air Force. Where this is not possible, strong forces of fighters and fighter-bombers are required for the protection of the landing areas ....."

".... The powerful attacks carried out by Fliegerkorps VIII in support of the land battles on Crete, and the effective protection of the landings, were decisive factors in the success of the operation. It was thanks to this air support that the landings took place without greater losses, and that the stubborn resistance of the enemy was finally broken ...."

".... The battle against the British Fleet was decided in favour of the Luftwaffe. Thus it was established that enemy warships operating in a confined area can be neutralised by air attack .... Attacks of this kind, together with the protection of supply shipping, require strong forces especially trained in anti-shipping operations, and depend also on favourable weather conditions ....."

".... The increasing attacks carried out against the British warships eventually silenced their strong and effective anti-aircraft guns.. In the afternoon of the second day, on which the main attack was launched, anti-aircraft fire had ceased almost completely, and the mass attacks of Fliegerkorps VIII were afterwards doubly effective. Aircraft-carriers no longer dared to come within the range of the Luftwaffe ....."



V.

THE DIEPPE LANDINGS.August 1942.

Extracts from 8th. Abteilung Staff Study, dated 27.3.1944.  
(Doc. No. 8A-2472.)

" ..... The large-scale coastal landing operations which have taken place during the present war would not have been practicable without the co-operation of the Air Force ..... During the landings at Dieppe on August 19th, 1942, support by the Air Force and consequent air supremacy, was necessary to equalise the position in view of the numerical inferiority of the ground troops landed and the weakness of the naval forces. Air power was also essential to protect the very vulnerable Allied transport shipping ....."

" ..... As a result of the experience gained during the Dieppe operation as to the necessity of air supremacy, the Allies made certain of such supremacy in all subsequent landing operations ....."

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VI.

THE AFRICAN CAMPAIGN

1942/1943.

Extract from speech made by General JOEL at Munich  
on 7.11.1943.  
(Doc. No.L-172. Office of U.S. Chief of Council)

" ..... The great operation planned against the Delta of the Nile in 1942/43 failed owing to our insufficient strength and inadequate supplies ..... For the first time our Western opponents showed themselves to be superior both technically and numerically in the air over the Mediterranean ..... Some of the finest German divisions fell victims to the stranglehold of a superior enemy Air Force on our supplies by sea ..... "

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VII.THE ALLIED INVASION OF NORTH-WESTERN EUROPE 1944/45.

- a) Field-Marshal RUNDSTEDT. (interrogation).  
(A.D.I. (K) Report No. 375A/1945.)

" ..... Allied heavy bomber attacks on the German Army considerably reduced its power to resist the Allied offensive. During the campaign in Normandy in 1944, the laying of a bomb carpet in front of the advancing Allied troops considerably facilitated the task of infantry and armour ..... The bombing of German positions on the coast also minimised artillery opposition to the landing fleets and softened up the coastal defences ..... In the Ardennes, the Air attacks on German communications had the effect of holding up our offensive for some 14 days, and prevented the transport of troops and supplies as quickly as scheduled. Rail traffic West of the Rhine was actually brought to a complete standstill, with the result that road communications were strained to the utmost ....."

- b) Reichsminister SPEER. (interrogation.)  
(A.D.I. (K) Report No. 349/1945)

" ..... Transport difficulties caused by Allied air attacks were decisive in causing the swift breakdown of the Ardennes offensive .... Even before the offensive began, the supply organisation was blocked and disorganised by the bad traffic conditions on the right bank of the Rhine, so that it proved impossible, for example, to trace the most vital fuel trains quickly, and get them up to the troops. While the offensive was in progress, it was impossible for the railway to keep pace with the advance. On the contrary, our most advanced railheads were withdrawn further and further back during the offensive owing to the continuous air attacks ....."

- c) Field Marshal GOERING. (interrogation.)  
(A.P.W.I.D. (Ninth Air Force Adv. 65/1945.))

" ..... GOERING attributed the Allied victory over Germany to two main factors, the successful invasion, and above all, the irresistible numerical superiority of the Allied Air Forces. Apart from all other aspects, he emphasised the devastating effect of such superiority on the morale of the ground forces. 'The Allies owe the success of the invasion to their Air Forces. They prepared the invasion, they made it possible, and they carried it through.' Without the Allied Air Forces, GOERING claimed, it would have been possible to bring up German reinforcements and make full use of armoured units".

/ (d)

THE ALLIED INVASION OF NORTH-WESTERN EUROPE 1944/1945 (Contd.)

- d) General JOEL on 19.5.45. (interrogation)  
(Doc. No.E.1771.)

" ..... I am of the opinion that had we been able to oppose the Allies in the air in equal strength the Anglo - American invasion would have been repulsed. Success was due solely to unquestioned Allied air supremacy ....."

- e) Extract from report by Field Marshal ROMMEL  
to Field Marshal KEITEL on 11.6.1944..

" ..... Our operations in Normandy are rendered exceptionally difficult, and in part impossible, by the strong and often overwhelming superiority of the enemy Air Force ..... The enemy has complete control of the air over the battle area up to a distance of about 100 km. behind the front, and with powerful fighter-bomber and bomber formations, immobilises almost all traffic by day on roads or in open country ....."

" ..... Movements of our troops on the battlefield by day are thus almost entirely impossible, while the enemy can operate without hinderance. In the country behind, all roads are exposed to continual attack, and it is therefore very difficult to bring up the necessary supplies of fuel and munitions ....."

" ..... Neither our flak nor our Air Force seems able to put an end to these crippling and destructive air attacks. Our troops are fighting as well as they can with the means available, but ammunition is scarce, and can be supplied only under the most difficult conditions."

- f) Extract from report by Field Marshal ROMMEL  
to Field Marshal VON KLUGE on 15.7.1944.

" ..... The position on the Normandy front is becoming daily more difficult, and is approaching a serious crisis. Owing to the intensity of the fighting, the exceptionally strong material supplies of the enemy, especially in artillery and armoured vehicles, and the operation of their Air Force, which commands the battlefield unchecked, our own losses are so high that the fighting strength of the divisions is rapidly sinking. Due to the disruption of the railways and the attacks carried out on major and minor roads up to 150 km. behind the front, only the most essential supplies can be delivered to the troops. Conditions are unlikely to improve in the future, as enemy air activity is likely to become even more intense by reason of their occupation of the many airfields in the bridgehead ....."

- g) Extract from report by Field Marshal VON KLUGE  
to HITLER on 21.7.44.

" ..... My discussions with field Commanders near Caen yesterday have convinced me that in our present position, there is no strategy possible that will counter-balance the annihilating effect of the enemy command of the air ....."

/ Whole

THE ALLIED INVASION OF NORTH-WESTERN EUROPE 1944/1945 (Contd.)

" ..... Whole armoured formations moving up to take part in counter-attacks have been caught by 'bomb-carpet' of such intensity that they have been completely destroyed. The psychological effect of such a hail of bombs is a factor demanding the most serious consideration ....."

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VIII.ALLIED BOMBING OF GERMANY

- a) Extracts from 8th. Abteilung Staff Study, - 'Some Effects of the Allied Air Offensive on German Economic Life,' dated 7.12.1944. (A.H.B.6. Translation No.VII/23.)

" .... The air war waged by the Allies until now against German territory has shown that a powerful Air Force can effectively dislocate the economic life of a nation possessing a numerically inferior Air Force. Prolonged attacks of growing intensity on bottle-neck industries and communications may well decide the outcome of a war ...."

" .... At the time of the invasion the Allies demonstrated that rail communications over a wide area can be completely paralysed. Attacks on roads by low-flying ground attack and fighter aircraft ruled out all possibility of using these arteries by day, and severely hindered their use by night, and all movements of personnel and supplies were therefore brought to a standstill. A similar situation now prevails in the Western provinces of Germany, and particularly in the Saar and Ruhr, where unceasing attacks by enemy bombers on industrial plants and communications centres, and low-level daylight blows against road and rail traffic have combined to produce a very critical situation."

" .... The nature of modern air warfare, the range of present-day aircraft, and the devastating effect of the explosives used, have together produced the most radical effects in our economy."

- b) Extracts from the 'Rise and Fall of German War Economy, 1939-1945,' by Dr. WAGENFUEHR, war-time Head of the Statistical Department of the Planning Division of the Ministry of Armament and War Production, dated 30.7.1945.

" .... During the Summer of 1944, a new and decisive strain was added to the many difficulties of German economy, - the systematic air attacks directed against communications and industrial plants ..... The incredible intensification of aerial warfare is best expressed in the tonnage of bombs dropped on Germany, (mines, HE., and incendiaries): in 1943, the figure was approximately 150,000 tons; in 1944, the total was between 550,000 tons and 600,000 tons, of which almost two-thirds were dropped in the second half of the year ....."

" .... According to the National Group for Industry, (Reichsgruppe Industrie), air attacks in March 1944 reduced industrial output by 3%, and in October by 6%. These figures do not include the results of attacks on the Rhineland and Westphalia ..... In the area concerned, more than one million working hours were lost ....."

- c) Reichsminister SPEER. (interrogation). A.D.I.(K). Report No.349/1945.)

" .... The first heavy attack on Hamburg in August 1943 made an extraordinary impression. We were of the opinion that a rapid repetition of this type of attack upon another six or so German towns would inevitably cripple the will to sustain armaments manufacture and war production. It was I who first verbally reported to the Fuehrer at that time that a continuation of these attacks might bring about a rapid end to the war ....."

/ As

ALLIED BOMBING OF GERMANY.. (Continued)

" .... As regards the systematic assault on the chemical industry which began on May 12th, 1944, ..... I had the impression that these attacks were the beginning of the long-expected and long feared series of planned attacks upon industrial economy, a sphere which owing to its complicated structure was particularly difficult to restore, and impossible to decentralise. In actual fact, this type of attack was the most decisive factor in hastening the end of the war ....."

- d) Oberst PETERSEN. (interrogation.)  
sometime Kommodore of KG 10,  
and latterly Chief of the Rechlin Experimental Centre.  
(A.D.I.(K). Report No. 355A/1945.)

" ..... The most effective single factor in the weakening of the German war effort was undoubtedly the attacking of oil producing centres and refineries. I cannot imagine why the Allies left this so late. Had they switched a large proportion of their Air Forces to the bombing of German transport bringing oil from Roumania, and at the same time employed large forces of bombers on attacking oil producing factories, the war would have finished 12 months earlier. When the Allies did at last turn their attention to these targets, we knew that the war was very nearly over ....."

- e) Conference between the FUHRER and  
Grand Admiral DOENITZ held on 3.2.1945.  
(Admiralty 'Fuehrer Conferences' 1945)

" ..... In connection with to-day's air attack on Berlin, Admiral DOENITZ expressed his concern regarding possible air raids on Stettin and Swinemunde which would surely have disastrous results because of the heavy concentration in these cities of naval and merchant vessels, refugees, and wounded soldiers. These harbours were of decisive importance and from a strategic point of view the enemy made a mistake in attacking Berlin rather than these harbours. It could be assumed that political motives determined the target of the raid. Everything possible must be done to protect the sea ports ....."

IX. THE AIR WAR AT SEA.

- a) Extract from 8th Abteilung Staff Study - 'Co-operation between the Air Force and Navy' dated 24.11.1943.  
(Doc. No. 8A - 2491.).

".... The effect of the Air Force on sea warfare is of decisive importance. This effect is not confined to reconnaissance and operations in conjunction with naval forces for the protection of supply routes. It extends also to attacks on enemy shipping and harbours in which the Navy plays no part ...."

- b) Extracts from 8th. Abteilung Staff Study, 'The Role of the German Air Force in the Battle off the Atlantic', dated 23.3.1944.  
(A.H.B. 6. Translation No. VII/17.).

".... The most effective weapon against submarines at sea is the aeroplane, and British sea routes are therefore planned so as to lie within the range of their aircraft.... The more the British succeed in establishing unchallenged air superiority over the convoy routes, thereby hampering German submarine activity, the less danger will there be for the entire enemy supply system... "

".... The operational capacity of our submarines is declining in proportion to the increase in enemy air activity. The enemy now has greater forces and improved equipment at his disposal, and his aircraft have now also a substantially greater range than before ..... Operations against Southbound convoys in the Atlantic have had to be almost entirely discontinued owing to overwhelming British air supremacy, and are now only possible at the cost of considerable losses of naval craft ..... Convoys travelling from West to East can still be attacked by submarines in an ever decreasing sea area between America and Europe in which the enemy Air Force is not quite so powerful ..... To combat the dangers of this situation, we must intensify our fight against the enemy Air Force over the Atlantic, and at the same time endeavour to provide our submarines with effective air support.... "

- c) Grand Admiral DOENITZ, on 18.3.1943.  
(Admiralty 'Fuehrer Conferences' 1943.).

".... The Air Force is indispensable for the protection of supply shipping. It is impossible to ward off present and future air attacks by naval forces alone.... "

- d) On 31.3.1943.

".... The substantial increase of the enemy Air Force is the cause of the present crisis in submarine warfare.... Our losses have increased during the last month from approximately 13% to approximately 30% of all our submarines at sea.... I have therefore ordered a withdrawal to the sea area West of the Azores in the hope of encountering less air reconnaissance there.... "

- e) Conference between the FUEHRER and Grand Admiral DOENITZ, held on 10.4.1945, to discuss the Allied air raids on German harbours and submarine yards.  
(Admiralty 'Fuehrer Conferences' 1945.).

".... DOENITZ reported that since March 30th, 24 submarines had been sunk and 12 damaged in harbours and shipyards. Nine of those sunk had been Type XXI, four of which were to go into action in April... In addition, as a result of these air raids, the fleet had also suffered heavy losses:



THE AIR WAR AT SEA (Cont.)

The cruiser SCHEER had capsized, the cruiser HIPPER set on fire, and the EMDEN damaged. The numerous Russian attacks on German naval forces at sea had been almost entirely unsuccessful, on the other hand; the Russians had shown themselves in general to be very inefficient in the operation of their Air Force against ships at sea.... "

".... The FUEHRER called attention to the fact that in the past as well, the losses suffered by the Navy had been due almost exclusively to enemy air attacks .... "

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X. EPILOGUE

'The Collapse viewed from within', by General KOLLER.

(A.D.I.K. Report No 348/1945.)

"....The campaigns in Poland, Holland, Belgium and France, and last, but not least, in Norway had proved unequivocally how important air supremacy is in a modern war ..... Not Germany, who showed what superior Air Forces and skill in using them could mean, has learned the lesson, but on the contrary the enemy countries, who built up a superior Air Force which could alone lead to victory. As long as we had air supremacy, nobody interfered with our shipping in the North Sea, along the German coast and from Holland to Brest, Bordeaux and Spain. The English Fleet did not show itself, no noticeable traffic dared to enter the Channel, -they often hardly dared to go into the southern part of the Irish Sea, and everything was forced to the far north. As long as we had air supremacy, nobody threatened our industries or the peaceful life of our homeland, our lines of communication in the Mediterranean were not interfered with. Had our air supremacy been kept up right from the beginning and at the cost of other armament programmes, we would not have been defeated in Africa or in the Mediterranean area."

"....With German air supremacy, we would have been able to maintain a capable industry and intact lines of communication, England's supplies would have been badly damaged before she could have built up her maximum war production, the massed concentration of Air Forces in England would not have been so easy as it was; there would have been no invasion, or it could have been beaten off."

"....Promises were made to build up the largest possible air force after the close of the Russian War. Millions of soldiers were then to be released from the Army and were to be sent to the aircraft industry and the German Air Force. Only the Air Force was to be built up. In the meantime, however, air armament was placed way down the list; first were submarines, then tanks, then assault guns, then howitzers, or Lord knows what, and then came the Air Force. We were smothered by the enormous superiority of Allied material, because the German High Command undertook too much on the ground in the East, and because it did not direct the main weight of armament right from the start towards air supremacy...."

"....For the future, everything depends on air supremacy, everything else must take second place. The supremacy of the seas is only an appendage of air supremacy. Look, for example, at the developments in the European and Pacific wars. Even the strongest fleet is of no value if the enemy has air supremacy. It can no longer leave its ports, or does so only to be destroyed. The country that has air supremacy and vigorously strengthens its air power over all other forms of armament to maintain that supremacy, will rule the world...."

"....All plans for the defence of a country, a continent or a sphere of interest, or for offensive operations, must be in the hands of the Air Force Command. The Army and Navy Commands are subordinate authorities. Although they cannot be done away with entirely, they must adapt themselves to all requirements in the air, which covers the entire world and extends to the high heavens...."

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